

ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43 21 RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring the preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the question from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. **The agency to which you submit this checklist may ask you to explain your answers or to provide additional information reasonably related to determining if there may be significant adverse impact.**

Use of checklist for non-project proposals:

Complete this checklist for non-project proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS (Part D).

For non-project actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Revising Chapter 173-308 WAC, Biosolids Management.

2. Name of applicant:

Washington State Department of Ecology.

3. Address and phone number of applicant and contact person:

Daniel Thompson
State Biosolids Coordinator
Washington State Department of Ecology
Solid Waste and Financial Assistance Program
P.O. Box 47600
Olympia WA 98504-7600
Phone: 360-407-6108

4. Date checklist prepared:

January 3, 2007.

5. Agency requesting checklist:

Washington State Department of Ecology.

6. Proposed timing or schedule (including phasing, if applicable):

The proposal is to revise Chapter 173-308 WAC, Biosolids Management (the state biosolids rule) to replace the existing rule which became effective on February 18, 1998. Following a threshold determination on this proposal, fulfillment of public notice requirements, fulfillment of public hearing requirements, completion of the public comment period, fulfillment of the duty to respond to all comments received, the creation of a final revised rule, and the filing of a final revised rule, the final revised rule will become effective 30 days after publication of notice of the final version in the State Register. The anticipated effective date is approximately June 23, 2007.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Possibly. As new information is collected it may become necessary to amend the rule in order to ensure protection of human health and the environment. If this is the case, any additional SEPA and public notice requirements will be met at that time.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

An Environmental Checklist was completed during the development of the current rule, and a DNS was issued by Ecology on December 10, 1993. An Environmental Checklist was completed for the first statewide biosolids general permit, and a DNS was issued by Ecology on January 2, 1998. An Environmental Checklist was completed for a revised statewide biosolids general permit, and a DNS was issued by Ecology on February 1, 2005.

In addition, all facilities in the state covered by the proposed revised rule are required to obtain a permit to handle biosolids. Typically this is done by applying for coverage under the biosolids general permit, but the option exists for facilities to obtain an individual permit. In either case, each facility will be required to separately meet their respective SEPA requirements—including submittal of Environmental Checklists and the issuance of threshold determinations as appropriate--and to submit land application plans for any existing or proposed biosolids land application sites where non-exceptional quality biosolids may be applied.

Numerous documents addressing the management of biosolids exist. Ecology has authored some of these and funded others. The Ecology co-authored and Ecology funded guidance document, *Biosolids Management Guidelines for Washington State* (publication #93-80, revised July 2000), is commonly used as a reference guide for biosolids management in Washington State. The Ecology co-authored and Ecology funded guidance document, *Managing Nitrogen from Biosolids* (publication # 99-508, April 1999), is also commonly used in the state. Either of these documents and others are available from the Solid Waste and Financial Assistance Program.

The following documents are attached, which may be relevant to this proposal:

- DNS and Environmental Checklist for the proposed original rule (December 10, 1993).
- DNS and Environmental Checklist for the first statewide biosolids general permit (January 2, 1998).
- DNS and Environmental Checklist for the revised statewide biosolids general permit (February 1, 2005).
- Chapter 173-308 WAC, Biosolids Management (February 18, 1998).
- Chapter 173-308 WAC, Biosolids Management (December 27, 2006) (Proposed Revised Rule).

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

Not applicable to this proposal. The proposal is not for a specific property. All facilities covered by the proposed revised rule will be required to get a permit from Ecology and, sometimes, from a jurisdictional health department for management of non-exceptional quality biosolids at a specific property. Meeting any SEPA requirements will be done by the applicant.

10. List any government approvals or permits that will be needed for your proposal, if known.

Issuance of a threshold determination by the SEPA lead agency (Ecology).

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agency may modify this form to include additional specific information on project description.)

The proposal is to revise the current state biosolids rule, which remains in effect until a new rule replaces it. Numerous revisions are being proposed to the existing rule. In all cases where changes are being proposed that may have an impact on the environment, a higher standard is being imposed. Thus, the proposed revised rule is more stringent with respect to the potential impact on the environment than the current rule.

The proposed revised rule applies statewide to all facilities defined as "treatment works treating domestic sewage". This includes, but is not limited to, facilities engaged in any of the following:

- A person who prepares biosolids or sewage sludge.
- A person who stores biosolids or sewage sludge.
- A person who applies biosolids to the land.
- Biosolids that are applied to the land.
- The land where biosolids are applied.
- The owner and lease-holder of land where biosolids are applied.
- A person who disposes of sewage sludge in a municipal solid waste landfill.
- Sewage sludge that is disposed of in a municipal solid waste landfill.
- Biosolids or sewage sludge generated at an industrial facility during the treatment of only domestic sewage.
- A person who transfers biosolids or sewage sludge from one facility to another.
- A person who transports biosolids or sewage sludge.
- Mixtures of biosolids and other materials including, but not limited to, solid wastes.

As part of the biosolids permitting process required under the proposed revised rule, facilities will be responsible for submitting biosolids permit applications that include land application plans and other plans, as applicable. The land application plans will contain information specific to proposed uses and the size of the project and site. Both the permit application process and the land application plans are at some point subject to meeting the SEPA requirements and public notice requirements.

12. Location of proposal Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographical map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any applications related to this checklist.

The proposed revised rule will be applicable statewide. All applicable facilities will be required to submit land application plans as part of the required permitting process if they will be applying non-exceptional quality biosolids to the land. Included in the requirements for site

specific land application plans is a map containing all the information asked for above in addition to other required content. In addition, for all sites where non-exceptional quality biosolids will be applied, the facility will have to meet all SEPA requirements, including submittal of a complete Environmental Checklist as appropriate.

B. ENVIRONMENTAL ELEMENTS

NOTE: Since the proposal is not for a specific site but, rather, for a revised rule that will eventually cover specific sites for which the proponent of the specific project will meet their respective SEPA requirements prior to being allowed to land apply non-exceptional quality biosolids, most of the responses below are not applicable to this proposal. However, where deemed appropriate, some information is provided on biosolids, generally, or the state biosolids program or the proposed revised rule, specifically.

1. Earth

a. General description of the site:

Not applicable to this proposal.

- ☐ flat
- ☐ rolling
- ☐ hilly
- ☐ steep slopes
- ☐ mountains

Other (describe):

b. What is the steepest slope on the site (approximate percent slope)?

Not applicable to this proposal. However, generally biosolids application is limited by slope and the solids content of the specific material (liquid or dewatered). Generally, a steeper slope is allowed for dewatered biosolids products than for liquid biosolids products due to the differences in runoff potential.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Not applicable to this proposal.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Not applicable to this proposal.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Not applicable to this proposal.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Not applicable to this proposal. However, generally biosolids application tends to reduce both wind and water erosion potential by increasing the water holding capacity of coarse-textured soils, by increasing water infiltration in fine-textured soils, by improving soil aggregation, and by enhancing root and general plant growth.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Not applicable to this proposal.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Not applicable to this proposal.

2. Air

- a. What types of emissions to the air would result from this proposal (i.e. dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Not applicable to this proposal.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Not applicable to this proposal.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Not applicable to this proposal.

3. Water

- a. Surface:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Not applicable to this proposal. However, the proposed revised rule requires buffers to surface water bodies when biosolids are applied. The required buffers range from 33

feet for Class B biosolids to 100 feet for septage (a class of biosolids derived mostly from home septic tanks). Many facilities provide for a significantly greater buffers to surface water bodies than those required by the proposed revised rule. Additionally, when issuing permits, Ecology frequently requires a larger buffer to surface water bodies than those required by the proposed revised rule.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Not applicable to this proposal.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of the fill material.

Not applicable to this proposal.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Not applicable to this proposal.

- 5) Does the proposal lie within a 100 year floodplain? If so, note location on the site plan.

Not applicable to this proposal. Generally, application of biosolids does not occur within a 100-year floodplain, however, occasionally it is allowed. When applications are proposed to occur within a 100-year floodplain, Ecology and/or health department staff generally require that applications occur only during the dry part of the year and when a substantial rainfall event is unlikely.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Not applicable to this proposal. Biosolids are not a waste material. Rather, state statute (chapter 70.95J RCW) has defined biosolids as a commodity, and the state biosolids program is required to maximize beneficial use of the material. Moreover, biosolids may not be discharged to surface waters.

b. Ground:

- 1) Will groundwater be withdrawn, or will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known

Not applicable to this proposal.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals . . . ; agricultural; etc.) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number animals or humans the system(s) are expected to serve.

Not applicable to this proposal. However, as discussed in 3.a.6, above, biosolids are not a waste material. In land application projects, biosolids will either be applied to the soil surface and left in-place, applied to the soil surface followed by incorporation into the soil, or directly injected into the soil. All land-applied biosolids will be done for the purposes of a beneficial use—generally to improve on-site soils for the enhancement of vegetative production.

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities if known) Where will this water flow? Will this water flow into other waters? If so, describe.

Not applicable to this proposal.

- 2) Could waste material enter ground or surface waters? If so, generally describe

Not applicable to this proposal. As discussed in 3.a.6, above, biosolids are not a waste material and may not be allowed to enter surface waters. Additionally, given the required buffers to surface waters described in 3.a.1, above, the general stability of biosolids once on the ground, and the typical limits on the steepness of slopes where biosolids may be applied, it is highly unlikely that biosolids will enter surface waters through runoff. With respect to groundwater, biosolids products are generally not allowed to be land applied when the water table is <3' below the soil surface, thus biosolids will not enter groundwaters.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Not applicable to this proposal.

4. Plants

- a. Check or circle types of vegetation found on the site:

Not applicable to this proposal.

- ☐ deciduous tree: ☐ alder, ☐ maple, ☐ aspen, ☐ other (list):
☐ evergreen tree: ☐ fir, ☐ cedar, ☐ pine, ☐ other (list):
☐ shrubs

- ☐ grass
- ☐ pasture
- ☐ crop or grain
- ☐ wet soil plants: ☐ cattail, ☐ buttercup, ☐ bulrush, ☐ skunk cabbage, ☐ other (list):
- ☐ water plants: ☐ water lily, ☐ eelgrass, ☐ milfoil, ☐ other (list):
- ☐ other types of vegetation (list):

b. What kind and amount of vegetation will be removed or altered?

Not applicable to this proposal. However, generally biosolids applications have been shown to significantly enhance the productivity of target species.

c. List threatened or endangered species known to be on or near the site.

Not applicable to this proposal. However, the application of biosolids is not allowed where it may negatively impact any threatened or endangered specie or its critical habitat.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Not applicable to this proposal.

5. Animals

a. Check or circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

Not applicable to this proposal.

birds: ☐ hawk, ☐ heron, ☐ eagle, ☐ songbirds, ☐ other (list):
mammals: ☐ deer, ☐ bear, ☐ elk, ☐ beaver, other (list):
fish: ☐ bass, ☐ salmon, ☐ trout, ☐ herring, ☐ shellfish, ☐ other (list):

b. List any threatened or endangered species known to be on or near the site.

Not applicable to this proposal. However, the application of biosolids is not allowed at sites where it may adversely impact any threatened or endangered specie listed under WAC 232-12-011 or WAC 232-12-014 or its critical habitat.

c. Is the site part of a migration route? If so, explain.

Not applicable to this proposal.

d. Proposed measures to preserve or enhance wildlife, if any:

Not applicable to this proposal. However, some biosolids projects currently being conducted specifically seek to provide enhanced wildlife habitat or feeding opportunities.

6. Energy and Natural Resources

- a. What kinds of energy (electrical, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Not applicable to this proposal.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Not applicable to this proposal.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Not applicable to this proposal.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

Not applicable to this proposal. However, biosolids generally contain some contaminants that, if present in high enough concentrations and if biosolids are improperly managed, could pose an environmental health hazard.

- 1) Describe any emergency services that might be required.

Not applicable to this proposal.

- 2) Proposed measures to reduce or control environmental health hazards, if any:

Not applicable to this proposal. However, to ensure that biosolids do not pose an environmental health hazard, biosolids products have to meet certain quality standards defined in the proposed revised rule. Quality standards that must be met for biosolids are the following: 1) have concentrations of 9 priority pollutants at or below defined levels (please see WAC 173-308-160, Tables 1, 2, and 3 in the proposed revised rule for additional details), 2) meet at least the Class B standards for pathogens and, if Class B, meet certain site management restrictions (please see WAC 173-308-170 and WAC 173-308-210 in the proposed revised rule for additional details), and 3) achieve or perform

at least one of the allowable options for vector attraction reduction (please see WAC 173-308-180 and WAC 173-308-210 in the proposed revised rule for additional details). For septage, either the biosolids quality standards must be met, or a lesser quality standard must be met and more strict site management restrictions must be applied (please see WAC 173-308-270 in the proposed revised rule for additional details). With respect to pollutants, generally biosolids across the State of Washington meet the "highest quality" criteria. In addition to all of the above, biosolids generally must be applied at an agronomic rate (please see WAC 173-308-190 and WAC 173-308-270 in the proposed revised rule for additional details). The requirement that all biosolids products be applied at an agronomic rate minimizes the overall input of priority pollutants to any land application site. Additionally, the organic matter in biosolids and some inorganic components of biosolids (namely, iron- and aluminum-oxides) tend to strongly bind pollutants of concern (e.g. cadmium, nickel, mercury) such that they are not bio-available.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Not applicable to this proposal.

- 2) What types and levels of noise would be created by or associated with the project on a short-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Not applicable to this proposal.

- 3) Proposed measures to reduce or control noise impacts, if any:

Not applicable to this proposal.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties?

Not applicable to this proposal.

- b. Has the site been used for agriculture? If so, describe.

Not applicable to this proposal. However, the majority of biosolids land application projects include the application of biosolids to agricultural land.

- c. Describe any structures on the site.

Not applicable to this proposal.

- d. Will any structures be demolished? if so, what?

Not applicable to this proposal.

- e. What is the current zoning classification of the site?

Not applicable to this proposal.

- f. What is the current comprehensive plan designation of the site?

Not applicable to this proposal.

- g. If applicable, what is the current shoreline master program designation of the site?

Not applicable to this proposal.

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

Not applicable to this proposal.

- i. Approximately how many people would reside or work in the completed project?

Not applicable to this proposal.

- j. Approximately how many people would the completed project displace?

Not applicable to this proposal.

- k. Proposed measures to avoid or reduce displacement impacts, if any:

Not applicable to this proposal.

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Not applicable to this proposal.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle or low-income housing.

Not applicable to this proposal.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Not applicable to this proposal.

- c. Proposed measures to reduce or control housing impacts, if any:

Not applicable to this proposal.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Not applicable to this proposal.

- b. What views in the immediate vicinity would be altered or obstructed?

Not applicable to this proposal.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

Not applicable to this proposal.

11. Light and Glare

- a. What kind of light or glare will the proposal produce? What time of day would it mainly occur?

Not applicable to this proposal.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Not applicable to this proposal.

- c. What existing off-site sources of light or glare may affect your proposal?

Not applicable to this proposal.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Not applicable to this proposal.

12. Recreation

- a. What designated and informal recreation opportunities are in the immediate vicinity?

Not applicable to this proposal.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

Not applicable to this proposal.

- c. Proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant, if any:

Not applicable to this proposal.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

Not applicable to this proposal.

- b. Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site? If so, generally describe.

Not applicable to this proposal.

- c. Proposed measures to reduce or control impacts, if any:

Not applicable to this proposal.

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans if any.

Not applicable to this proposal.

- b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Not applicable to this proposal.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

Not applicable to this proposal.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Not applicable to this proposal.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Not applicable to this proposal.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Not applicable to this proposal.

- g. Proposed measures to reduce or control transportation impacts, if any:

Not applicable to this proposal. However, the proposed revised rule contains a requirement that all applicable facilities submit a "Spill Prevention/Response Plan" as part of their permit application package. This requirement seeks to minimize the potential for a biosolids spill during transportation and maximize the effectiveness of clean-up if a spill occurs.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Not applicable to this proposal.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

Not applicable to this proposal.

16. Utilities

- a. Check or circle utilities currently available at the site:

Not applicable to this proposal.

- ☐ electricity
☐ natural gas
☐ water
☐ refuse service
☐ telephone
☐ sanitary sewer
☐ septic system
☐ other (list):

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

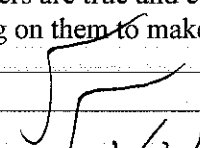
Not applicable to this proposal.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Date Submitted: _____


1/3/2007

D. SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS (do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Increase Discharges to Water: The proposed revised rule is not expected to result in an increase in discharges to water. Discharges of biosolids to water is explicitly prohibited under the proposed revised rule. In addition, the proposed revised rule contains a requirement for a minimum buffer of 33 feet to surface waters at biosolids application sites (100 feet at sites where septage is applied) and 100 feet from wells. These buffers are typically much greater in practice. In addition, the proposed revised rule requires applications of biosolids at an agronomic rate except in certain, well-defined situations; this ensures no discharge to ground water.

Increase Emissions to the Air: The proposed revised rule is not expected to increase emissions to the air. Biosolids projects currently in-place or proposed are expected to continue or be implemented. Due to population growth, some growth in the mass of biosolids managed can be expected to occur, this will likely lead to an increase in the emissions from hauling vehicles and from land application vehicles, but the overall impact on emissions to the air is expected to remain generally the same.

Increase Production, Storage, or Release of Toxic or Hazardous Substances: The proposed revised rule is not expected to increase the production, storage or release of potentially toxic or hazardous substances. Biosolids projects currently in-place or proposed are expected to continue or be implemented. Due to population growth, some growth in the mass of biosolids managed can be expected to occur, but the overall impact on the production, storage, or release of potentially toxic hazardous substances is expected to remain generally the same. Moreover, it is anticipated that through pretreatment programs and through Ecology's PBT program, the concentration of potentially toxic or hazardous substances in biosolids should decrease.

Increase Production of Noise: The proposed revised rule is not expected to increase the production of noise. Biosolids projects currently in-place or proposed are expected to continue or be implemented. Due to population growth, some growth in the mass of biosolids managed can be expected to occur, but the overall impact on the production of

noise is expected to remain generally the same.

Proposed measures to avoid or reduce such increases are:

No such measures are proposed, as no increases are expected.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Plants: The proposed revised rule is not expected to adversely affect plants. Biosolids applied to the land generally has a very positive impact on plants by providing essential nutrients and improving soil physical properties, which enhances root growth and subsequent plant growth. In fact, typically the primary reason that biosolids are land-applied is for use as a soil amendment to improve target vegetation.

Animals: The proposed revised rule is not expected to adversely affect animals. Biosolids applied to the land commonly has a positive impact on animals by providing a higher quality, more abundant food source (for wildlife projects) and a higher quality feed source (for domestic animals).

Fish: The proposed revised rule is not expected to adversely affect fish. Biosolids applications may have a positive impact on fish by reducing erosion of soils and by reducing the use of inorganic fertilizers which tend to have highly mobile forms of nutrients that can eventually end up in waters of the state.

Marine Life: The proposed revised rule is not expected to adversely affect marine life. Biosolids application may have a positive impact on marine life for the reasons described above for fish.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

No such measures are proposed, as the proposed revised rule is not expected to have an adverse impact on any of the above organisms.

3. How would the proposal be likely to deplete energy or natural resources?

The proposed revised rule is not expected to adversely impact energy or natural resources. The use of biosolids can have a positive impact on energy by reducing the need to produce inorganic fertilizer products, the production of which is generally very energy intensive. Additionally, there is currently research being conducted that seeks to grow oil-producing crops with biosolids. The oils produced can later be converted to bio-diesel. The bio-diesel can then be used as vehicle fuel. If successful, this could potentially reduce the need for natural resources.

Proposed measures to protect or conserve energy and natural resources are:

No such measures are proposed, as the proposed revised rule is not expected to deplete energy or natural resources.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Parks: Potentially biosolids could be applied to parks. In fact, at least one very successful project using biosolids at a park has been completed in the past (Discovery Park in Seattle). Any such proposals would be evaluated in the site approval process. This process requires that SEPA and public notice requirements be met.

Wilderness: The proposed revised rule is unlikely to impact any designated Wilderness Areas in any manner, as most biosolids projects involve mechanical equipment, and such equipment is prohibited in designated Wilderness Areas.

Wild and Scenic Rivers: The proposed revised rule is unlikely to impact any Wild and Scenic Rivers, as biosolids are prohibited from being discharged to surface waters, and certain buffers from surface waters are required (see D.1, above).

Threatened or Endangered Species Habitat: The proposed revised rule explicitly prohibits the application of biosolids to the land if they are likely to adversely affect a threatened or endangered species listed under chapter 232 WAC or section 4 of the Endangered Species Act or its critical habitat.

Historic or Cultural Sites: It is highly unlikely that biosolids will be applied to any historic or cultural sites. Any such proposals would be evaluated in the site approval process. This process requires that SEPA and public notice requirements be met.

Wetlands: The proposed revised rule explicitly forbids the application of non-exceptional quality biosolids to wetlands unless approved as a special condition. At least one very successful remediation project was conducted where biosolids were part of the base for a constructed wetland (Bunker Hill Superfund Site in ID), however, no such projects have been approved or proposed in Washington.

Floodplains: Biosolids may potentially be applied in a floodplain. If so, the proponent typically has to meet certain requirements such as to apply only during the dry part of the year when the potential for a rainfall event is low. Any such specific proposals would be evaluated in the site approval process. This process requires that SEPA and public notice requirements be met.

Prime Farmlands: Biosolids products are likely to be applied to prime farmlands to enhance vegetative production. This is considered to be a positive impact.

Proposed measures to protect such resources or to avoid or reduce impacts are:

No such measures are proposed, as the proposed revised rule is not expected to adversely affect any of the above listed areas.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Shorelines: The proposed revised rule is not expected to impact shorelines. The proposed revised rule requires certain buffers from surface waters as discussed in D.1, above. Additionally, any such specific proposals would be evaluated in the site approval process. This process requires that SEPA and public notice requirements be met.

Land Use: All biosolids projects (whether land application, composting, mixing), are required to go through an approval process. This process requires that SEPA and public notice requirements be met. Any issues of incompatibility with existing land use plans will be addressed during the approval process.

Proposed measures to avoid or reduce shoreline and land use impacts are:

No such measures are proposed, as the proposed revised rule is not expected to adversely impact shorelines. If a proposal raises any issues of incompatibility with existing land use plans, these will be addressed during the approval process.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Increase Demands on Transportation: The proposed revised rule is not expected to increase demands on transportation. Biosolids projects currently in-place or proposed are expected to continue or be implemented. Due to population growth, some growth in the mass of biosolids managed can be expected to occur, but the overall demand on transportation is expected to remain generally the same.

Increase Demands on Public Services and Utilities: The proposed revised rule is not expected to increase demands on public services and utilities.

Proposed measures to reduce or respond to such demand(s) are:

No such measures are proposed, as the proposed revised rule is not expected to increase demands on transportation or public services and utilities.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The proposed revised rule explicitly requires that all biosolids facilities and sites where

biosolids are applied to the land comply with other applicable federal, state and local laws including zoning and land use requirements (please see WAC 173-308-030 in the attached proposed revised rule for additional information).
